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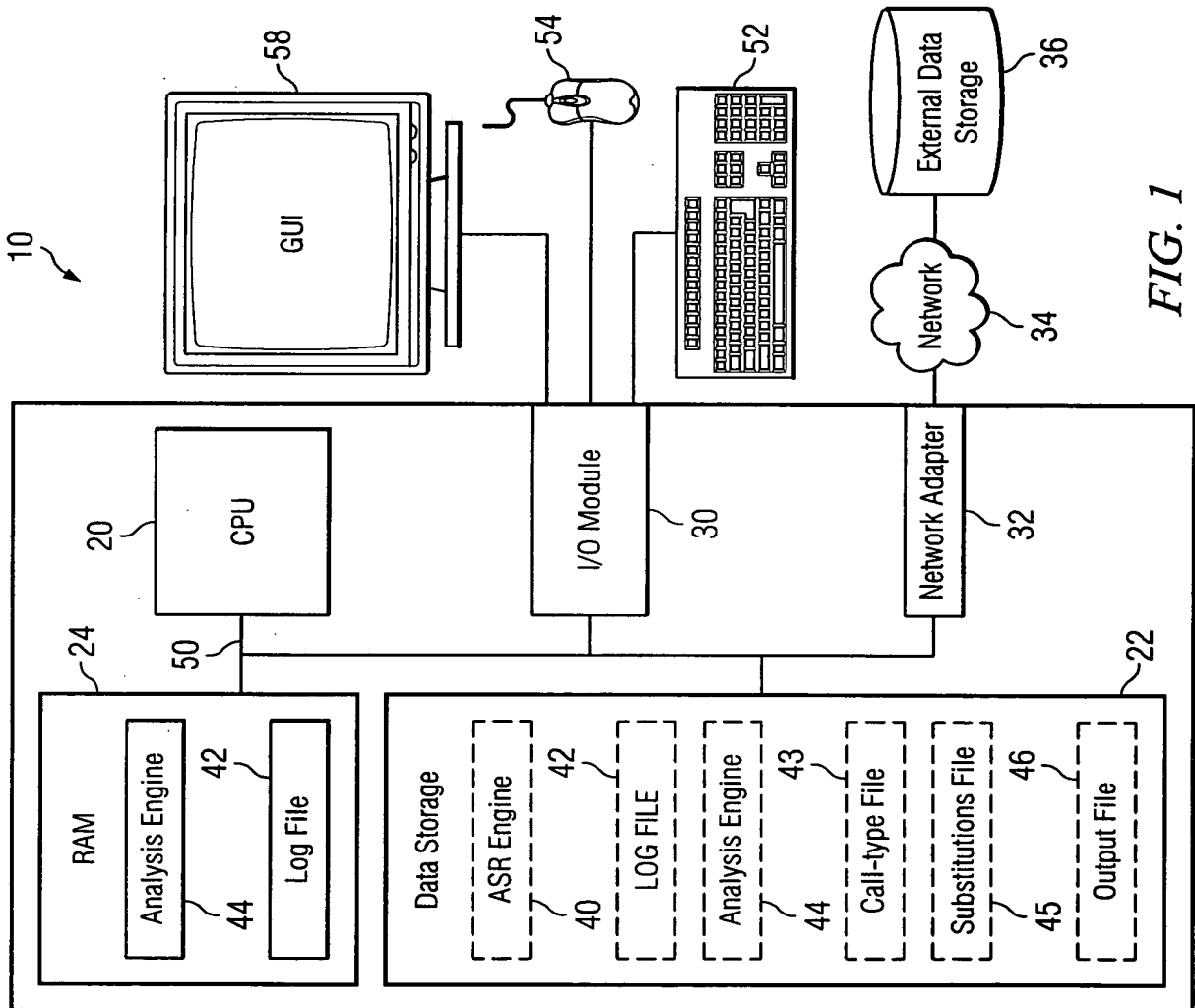


FIG. 1

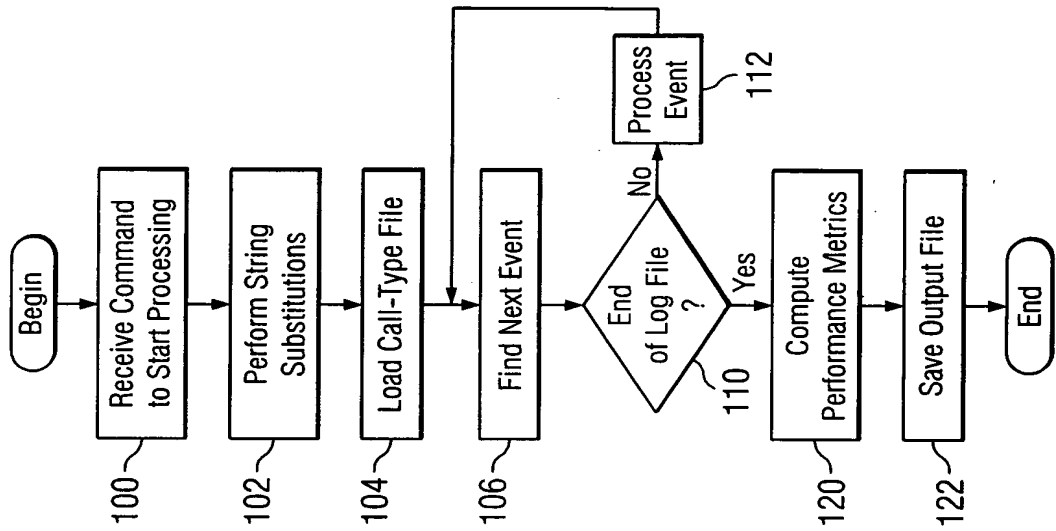


FIG. 5

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| System                                                                                                                    | Participant             |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <i>Thank you for calling SBC directory assistance. Do you want a phone number, a name and address, or something else?</i> | <i>A phone number</i>   |
| <i>What city and state?</i>                                                                                               | <i>Edmond, Oklahoma</i> |
| <i>What name?</i>                                                                                                         | (unintelligible)        |
| (System transfers call to live operator.)                                                                                 |                         |
|                                                                                                                           |                         |

*FIG. 2*

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**SpeechTimes**

**About SpeechTimes**

**Input File**

C:\Documents and Settings\mills\My Documents\Johns Speech\half12\_and\_16.txt

Select Input File Open Input File

**Output File**

C:\Documents and Settings\mills\My Documents\Johns Speech\output.txt

Select Output File Open Output File

☐ **CallType File** Help

C:\Documents and Settings\mills\My Documents\Johns

Select CallType File Open CallType File

☐ **Substitutions File** Help

C:\Documents and Settings\mills\My Documents\Speech Times\substitutions.txt

Select Substitutions File Open Substitutions File

**Current Line:**

☒ **Print column headers**

62 **Process Input File** Lines Processed **Save Settings** **Exit**

*FIG. 4*

04-15/07:29:44.115 T01.0000.0024 call\_start  
5123386065:5123465300:20020415873784024:N/A  
04-15/07:29:44.254 T01.0000.0024 log :SubjectID=Ginny, 2002-4-15/7:29:44,  
ANI=5123465300,CGU,FRL  
04-15/07:29:44.254 T01.0000.0024 prompt audio/70.vox;  
04-15/07:29:50.954 T01.0000.0024 prompt\_end done:  
04-15/07:29:51.014 T01.0000.0024 prompt audio/11.vox;  
04-15/07:29:56.654 T01.0000.0024 prompt\_end done:  
04-15/07:30:00.535 T01.0000.0024  
ASR\_DONE:results;grammar: + <\_gram1> answer:phone:95|95| <phone number>-Bargein-  
\_bargin\_;|cgu  
04-15/07:30:00.554 T01.0000.0024 input\_end :phone  
04-15/07:30:00.554 T01.0000.0024 filled\_enter ALL:cgu  
04-15/07:30:00.594 T01.0000.0024 prompt audio/41.vox;  
04-15/07:30:03.394 T01.0000.0024 prompt\_end done:  
04-15/07:30:07.356 T01.0000.0024  
ASR\_DONE:results;grammar: + <\_gram1> city:Edmond:82 + <\_gram1> state:OK:94|82| <Edmond  
Oklahoma>-Bargein-\_bargin\_;|cs\_slots  
04-15/07:30:07.374 T01.0000.0024 input\_end :  
04-15/07:30:07.394 T01.0000.0024 call\_appl DA-subDA:  
04-15/07:30:07.434 T01.0000.0024 call\_appl DA-chkFRL:  
04-15/07:30:07.584 T01.0000.0024 prompt audio/3.vox;  
04-15/07:30:10.184 T01.0000.0024 prompt\_end done:  
04-15/07:30:14.398 T01.0000.0024 ASR\_REJECTED:results;grammar:REC THREAD 0, all the  
recognition results scores are lower than confidence score-Bargein-  
\_bargin\_;|frl\_slots  
04-15/07:30:14.414 T01.0000.0024 event NOMATCH:1  
04-15/07:30:14.434 T01.0000.0024 call\_appl DA-xferOperator:  
04-15/07:30:14.434 T01.0000.0024 prompt audio/2.vox;  
04-15/07:30:17.894 T01.0000.0024 prompt\_end done:  
04-15/07:30:17.994 T01.0000.0024 call\_appl DA-toOpData.jsp:  
04-15/07:30:17.994 T01.0000.0024 log :End Automation >>>2002-4-15/7:30:17,  
ANI=5123465300  
04-15/07:30:20.496 T01.0000.0024 log :Start Store and Forward >>>2002-4-15/7:30:20,  
ANI=5123465300  
04-15/07:30:27.521 T01.0000.0024 log :End Store and Forward >>>2002-4-15/7:30:27,  
ANI=5123465300  
04-15/07:31:02.754 T01.0000.0024 call\_end usrend

*FIG. 3*

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| Indicator String      | Event          | Procedure                                                                                                                                                                          |
|-----------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 call_start          | Call start     | Record call start time from timestamp                                                                                                                                              |
| 2 log: SubjectID =    | Participant ID | Record the ID                                                                                                                                                                      |
| 3 prompt audio/70.vox | Dialog start   | Record that a new dialog started and when it started                                                                                                                               |
| 4 prompt audio/11.vox | Dialog start   | Record that a new dialog started and when it started                                                                                                                               |
| 5 prompt_end done     | Prompt end     | Record time that "listening" started                                                                                                                                               |
| 6 ASR-DONE:results    | ASR result     | A. Record result of ASR attempt (utterance recognized as the words "phone number").<br>B. Calculate elapsed time for current dialog.<br>C. Store all data relevant to this dialog. |
| 7 prompt audio/41.vox | Dialog start   | Record that a new dialog started and when it started                                                                                                                               |
| 8 call_end usrend     | Call end       | A. Calculate call duration<br>B. Print one line for each dialog in call                                                                                                            |
| .                     | .              | .                                                                                                                                                                                  |
| .                     | .              | .                                                                                                                                                                                  |
| .                     | .              | .                                                                                                                                                                                  |

**FIG. 6**

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| SUBID          | CALLNUM | PATH           | DATE    | CALLSTART     | CALLDUR         | VALID? | ASRDUR | GETOPDUR | SAFDUR | LIVEDUR |
|----------------|---------|----------------|---------|---------------|-----------------|--------|--------|----------|--------|---------|
| 99             | 1       | CGU,FRL        | 15-Apr  | '07:29:44.115 | 78.639          | valid  | 33.879 | 2.502    | 7.25   | 35.233  |
|                |         |                |         |               |                 |        |        |          |        |         |
| DLGNAME        | DLGDUR  | PROMPTNAME     | PRMTDUR | PRMTENDTYPE   | RECRSLT         |        |        |          |        |         |
| Greeting       | 6.76    | Greeting       | 6.7     | done:         |                 |        |        |          |        |         |
| Main_Menu?     | 9.58    | Main_Menu?     | 5.64    | done:         | phone number    |        |        |          |        |         |
| City_State?    | 6.99    | City_State?    | 2.8     | done:         | Edmond Oklahoma |        |        |          |        |         |
| Name,_please?  | 6.85    | Name,_please?  | 2.6     | done:         | REJECTED        |        |        |          |        |         |
| OBWYM(Default) | 3.56    | OBWYM(Default) | 3.46    | done:         |                 |        |        |          |        |         |

**FIG. 7**